

WHAT IS CLAIMED IS:

1. An image sensing apparatus comprising a plurality of image sensing units for receiving an object image via different apertures,

5 wherein said plurality of image sensing units are arranged such that images of an object at a predetermined distance are received as they are shifted a predetermined amount from each other in at least the vertical direction, and

10 wherein said plurality of image sensing units have filters having different spectral transmittance characteristics.

2. The apparatus according to claim 1, further comprising a plurality of image forming optical systems
15 for forming images of object light, entering via said different apertures, onto said plurality of image sensing units.

3. The apparatus according to claim 1, wherein said plurality of image sensing units are arranged such that
20 images of an object at a predetermined distance are received as they are shifted a predetermined amount from each other in the horizontal direction.

4. The apparatus according to claim 1, wherein said plurality of image sensing units are at least three
25 image sensing units.

5. The apparatus according to claim 1, wherein said plurality of image sensing units are at least three

image sensing units which receive object images via said filters having different spectral transmittance characteristics.

6. The apparatus according to claim 1, wherein said
5 plurality of image sensing units are at least three image sensing units which receive object images via filters having green, red, and blue spectral transmittance characteristics.

7. The apparatus according to claim 1, wherein said
10 plurality of image sensing units are formed on the same plane.

8. The apparatus according to claim 1, wherein
said plurality of image sensing units are area sensors by which images of an object at the predetermined
15 distance are received as they are shifted at a pitch of a 1/2 pixel in the vertical direction.

9. The apparatus according to claim 4, wherein said
plurality of image sensing units are area sensors by which images of an object at the predetermined distance
20 are received as they are shifted at a pitch of a 1/2 pixel in the horizontal direction.